

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number: 07977-218603
I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop AF, Commissioner for Patents, Box 1450, Alexandria, VA 22313-1450.	Application Number 10/753,524	Filed January 9, 2004
	First Named Inventor Shunpei Yamazaki et al.	
	Art Unit 3663	Examiner Johannes P. Mondt
	Date of Deposit Signature Typed or Printed Name of Person Signing Certificate	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a Notice of Appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB-96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record <u>37,640</u> (Reg. No.)</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p>		
<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.</p>		
<p><input checked="" type="checkbox"/> Total of 4 forms are submitted.</p>		



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Shunpei Yamazaki et al.	Art Unit :	3663
Serial No. :	10/753,524	Examiner :	Johannes P. Mondt
Filed :	January 9, 2004	Conf. No. :	7877
Title :	SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME		

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Commissioner for Patents
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pursuant to United States Patent and Trademark Office OG Notices: 12 July 2005 - New Pre-Appeal Brief Conference Pilot Program, a request for a review of identified matters on appeal is hereby submitted with the Notice of Appeal. Review of these identified matters by a panel of examiners is requested because the rejections of record are clearly not proper and are without basis, in view of a clear legal or factual deficiency in the rejections. All rights to address additional matters on appeal in any subsequent appeal brief are hereby reserved.

Claims 21-23, 25 and 42 are currently pending, with claim 21 being independent. Claims 21 and 42 have been rejected as being anticipated by Iwasaki (JP 08-288515), claim 22 has been rejected as being unpatentable over Iwasaki in view of Erhart (U.S. Patent No. 5,572,211), and claims 23 and 25 have been rejected as being unpatentable over Iwasaki in view of den Boer (U.S. Patent No. 5,539,219). Applicant requests withdrawal of these rejections.

Applicant specifically asks the panel to review the issues highlighted below.

1. Iwasaki does not describe or suggest an arrangement in which lattices are continuously connected to each other at a grain boundary of the semiconductor film, as recited in claim 21.

Claim 21 is directed to a personal computer that includes a semiconductor film provided over a substrate and comprising a source region, a drain region and a channel formation region provided between the source region and the drain region, and a gate electrode provided adjacent to the channel formation region with a gate insulating film therebetween. Claim 21 further recites that lattices are continuously connected to each other at a grain boundary of the semiconductor film.

As shown in the application at Figs. 17C and 17D, and discussed in the application at page 16, lines 5-22, defects such as dangling bonds in the grain boundaries of a semiconductor film may reduce performance of a device employing that semiconductor film by acting as traps for charge carriers. Thus, by eliminating these defects and causing the lattices to be continuously connected to each other at a grain boundary, device performance may be improved.

Iwasaki does not describe or suggest an arrangement in which lattices are continuously connected to each other at a grain boundary. The rejection indicates that this feature is shown by the grain boundary 23 of Iwasaki, which is shown in Fig. 3F and discussed at col. 12, lines 17-18. In particular, apparently recognizing that Iwasaki makes no mention of lattice connections, the rejection appears to argue that the continuous connection of the lattices would be inherent in any grain boundary.

Applicant disagrees and notes that "continuous" connection of the lattices is not inherent in a grain boundary. For example, as noted above, the present application describes at least one way (i.e., through the presence of dangling bonds) in which the connection between lattices at a grain boundary may not be continuous. Thus, since there is at least one way in which the lattices may not be continuously connected, such continuous connection cannot be said to be inherent in all sets of grain boundaries.

In response to this argument, the advisory action notes that "any plurality of lattices and any connection across any grain boundary would suffice while grains exclusively surrounded by air, gas or vacuum would be a gas and not condensed matter and not a semiconductor but, as an assembly, an insulator." Thus, the advisory action again appears to assert, without addressing

applicant's prior arguments, that any connection between lattices at a grain boundary would necessarily be a "continuous" connection. As discussed above, this simply is not the case.

Accordingly, for at least these reasons, continuous connection of lattices would not have been inherent in Iwasaki and the rejection should be withdrawn.

2. Neither Erhart nor den Boer remedies this failure of Iwasaki.

Erhart and den Boer also fail to describe or suggest such an arrangement and, accordingly, do not remedy the failure of Iwasaki. Accordingly, the obviousness rejections should also be withdrawn for the reasons discussed above.

Applicant submits that all claims are in condition for allowance.

Please apply any other charges or credits to Deposit Account No. 06-1050.


Respectfully submitted,

Date: 12/24/06

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